

Product Texts

NORYL GTX™ 989 resin is a conductive, non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade is optimized for primer-less electrostatic painting. NORYL GTX989 resin exhibits high heat resistance, high impact resistance, and low coefficient of thermal expansion (CTE) of ~9. This material is an excellent candidate for automotive applications such as body panels, tank flaps, fenders, trunk lid, and exterior trim.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	19	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	16	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2300	MPa	ISO 527
Yield stress	60	MPa	ISO 527
Yield strain	5	%	ISO 527
Stress at break	55	MPa	ISO 527
Strain at break	40	%	ISO 527
Flexural modulus	2300	MPa	ISO 178
Charpy notched impact strength, +23°C	22	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	15	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	22	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	15	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2350	MPa	ASTM D 638
Tensile Strength at Yield	65	MPa	ASTM D 638
Tensile Strength at Break	60	MPa	ASTM D 638
Elongation at Yield	5	%	ASTM D 638
Elongation at Break	45	%	ASTM D 638
Flexural Modulus	2450	MPa	ASTM D 790
Izod Impact notched, 1/8 in	240	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	180	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	195	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	200	°C	ISO 306
Coeff. of linear therm. expansion, parallel	90	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2
ASTM Data			
DTUL @ 66 psi	190	°C	ASTM D 648
Vicat Temperature	195	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	4.2	%	Sim. to ISO 62
Humidity absorption	1.2	%	Sim. to ISO 62
Density	1080	kg/m ³	ISO 1183
Density	1080	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	2 - 3	h	-
Processing humidity	≤0.07	%	-

Melt temperature	290 - 320	°C	-
Mold temperature	100 - 120	°C	-
Feed temperature	60 - 80	°C	-
Zone 1	260 - 280	°C	-
Zone 2	280 - 300	°C	-
Zone 3	290 - 320	°C	-

Characteristics

Processing

Injection Molding

Regional Availability

Asia Pacific

Applications

Automotive